

117 AND 118 REPAIR		PROCESSING AND PROPERTIES MODEL		119 AND 120 REPAIR	
BC A-41 "Anti-complex" of egg white. S.S. FERRY. (Trans. Lab. Inst. Belts Belkovo Chem. Organ., 1935, No. 8, 64-74).--Addition of alkali to dialyzed egg- white causes a decrease in γ and an increase in κ. The "anti-complex" thus indicated was not isolated. (Ch. Ana. (n))					
ADD. 11.6 METALLURGICAL LITERATURE CLASSIFICATION					
117 AND 118 REPAIR		119 AND 120 REPAIR		121 AND 122 REPAIR	

PEROV, S.S.; IVANOV, N.I., redaktor; PECHKOVSKAYA, T.V., tekhnicheskiy redaktor

[Physical and chemical indicators for the series of protoacids in the dynamics of concentrations and temperatures; on the problem of the structure of protein substances.] Fiziko-khimicheskie pokazateli riada protokislot v dinamike kontsentratsii i temperatur; k probleme stroeniia bel'kovykh veshchestv. Moskva, Gos. izd-vo selkhoz. lit-ry, 1947. 39 p. (MLRA 9:3)

1. Chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Perov)
(Proteins) (Acids, Organic)

PERQI, S.S.; IVANOV, N.I., redaktor; PECHKOVSKAYA, T.V., tekhnicheskii redaktor

[Caseinic protein protoacid; methods of extraction and physico-chemical characteristics] Kazeinovaia bel'kovaia protokislota; metody polucheniia i fiziko-khimiicheskaia kharakteristika. Moskva, Gos. izd-vo selkhoz. lit-ry, 1947. 61 p. (MLBA 9:3)

1. Deystvitel'nyy chlen Vsesoyuznoy Akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina
(Caseinic acid) (Proteins)

PEROV, S. S.

PA 2075

USSR/Chemistry
Agriculture
Albumins

Jun 1947

"Albuminoid Proto-acids in the Seeds of Herbs, Shrubs, and Trees," S. S. Perov, Acting Member of the All-Union Academy of Agricultural Sciences imeni Lenin, 6 pp

"Dok V-S Ak Selkhoz Nauk im Lenina" Vol XII, No 6

Gives four tables of data on the chemical analysis of various seeds and their reactions in 1% solutions of sodium proteinate. Discussion concluding that it is possible to extract albumins of proto-acid type from said seeds by a uniform method, i.e., albumins of an acid function titrated by sodium hydroxide.

2075

PROCESSING AND PROPERTIES INDEX																									
CROSS REFERENCE													CROSS REFERENCE												
CA 11A The colloidal properties of proteins of animal and plant plasma. S. S. Joffe. <i>Doklady Vsesoyuz. Akad. Nauk. SSSR</i>, 1947, No. 10, 3-11 (1947). - Casein protoacid and protein from soybeans and peas dissolved in neutral salt soln. approaching that of blood plasma (a mixt. of phosphates and chlorides of Na and K whereby the acid function persists depending on the COOH present) were used in expts. on the effect of $(NH_4)_2SO_4$ (salting-out) on these preps. and their derivs. formed upon the addn. of NaOH or HCl. These proteins proved to behave similarly to salting-out effects. Their salting-out limits depend on the degree of the dispersion and elec. charge. With the protein as a cation the points of salting out are shifted to the left and the stability of the sol. is decreased. The reverse is true when the protein is in the anionic state. Biol. stability of the organism increases when the anionic state of the proteins is increased. In feeding animals the acid-base equil. of the feed and of the organism has to be considered. The pH, buffer capacity of blood, base reserve, salt compn. of organism has to be looked into in the problem of breeding animals. I. S. Joffe																									
ALB 51A METALLURGICAL LITERATURE CLASSIFICATION SACN: 51A 51A SANDORI: 51A 51A																									

CA

Colloidal properties of purified casein albumin protoacid in an active acid medium. S. S. Perov. Doklady Vsesoyuz. Akad. Nauk SSSR. Nauk. im. T. T. Lening 12, No. 12, 20-8(1947); cf. C.A. 42, 6380g. The prepn of pure "casein protoacid" and Na caseinate is described. Solns. of Na caseinate (4 and 0%) on addn. of HCl give a sol, gel, or sandy ppt. Low pH and low temp. favor milky gel formation, pH below 1.5 gives a ppt. and clear liquid. The rate of gelation increases very rapidly with decrease in pH. The results are explained by von Weimarn's theory of relative concn. of nuclei for the formation of free protoacid.

Wooden Waring

A.I.D.-S.S.A. METALLURGICAL LITERATURE CLASSIFICATION

PEROV. S. S.

PA5/49T61

USSR/Medicine - Albumin
Chemistry - Albumins

Mar 48

"Standard of Protocaseinic Acid as the Most Typical
and Widely Distributed Albumin," S. S. Perov,
Active Mem, All-Union Acad Agr Sci imeni V. I. Lenin,
3 1/2 pp

"Dok v-s Ak Selkhoz Nauk" No 3

Explains importance of having standard for com-
paring other albumins. Describes preparation of
protocaseinic acid from milk. Equivalent weight is
1,220 (mean of 500 samples). Tabulates numerous
physical and chemical properties. Submitted 24 Jan
48.

5/49T61

PEROV, S. S.

PA 33/49713

USSR/Chemistry - Albumin
Chemistry - Anhydration

Jun 48

"The Loss in Weight of Pure Albumin Protoacid at 105° (the Problem of the Relation of Albumin and Water)," S. S. Perov, Active Mem, All-Union Acad Agr Sci Iment V. I. Lenin, 10 pp

"Dok v-s Ak Selkhoz Nauk" No 6

Ordinary albumin in form of protoacids has constant water content. Anhydration occurs at temperatures of 100 - 105°. In this process, water is eliminated from two carboxyls in albumin protoacid.

Separation of water can be conducted by mechanical dehydrators. Casein albumin protoacid in

33/49713

USSR/Chemistry - Albumin (Contd.)

Jun 48

precipitation reactions contains about 8% water, in various forms, at its isoelectric point. Submitted 14 May 48.

33/49713

PA 33/49115

USSR/Chemistry - Albumin
Chemistry - Analysis

Oct 48

"Basic Technological Principles of Pure Vegetable
Nutrient Albumin," S. S. Perov, All-Union Acad
Agr Sci Imeni V. I. Lenin, 12 pp

"Dok v-s Ak Belkhoz Nauk" No 10

Developments in biochemistry of proteins have led
to determining simplicity of native albumin struc-
ture. Nevertheless native albumin must be con-
sidered a complex ester-like or salt-like compound,
where acid part is composed of protoacid and
alkaline part of histamine. Pure nutrient albumin

33/49115-

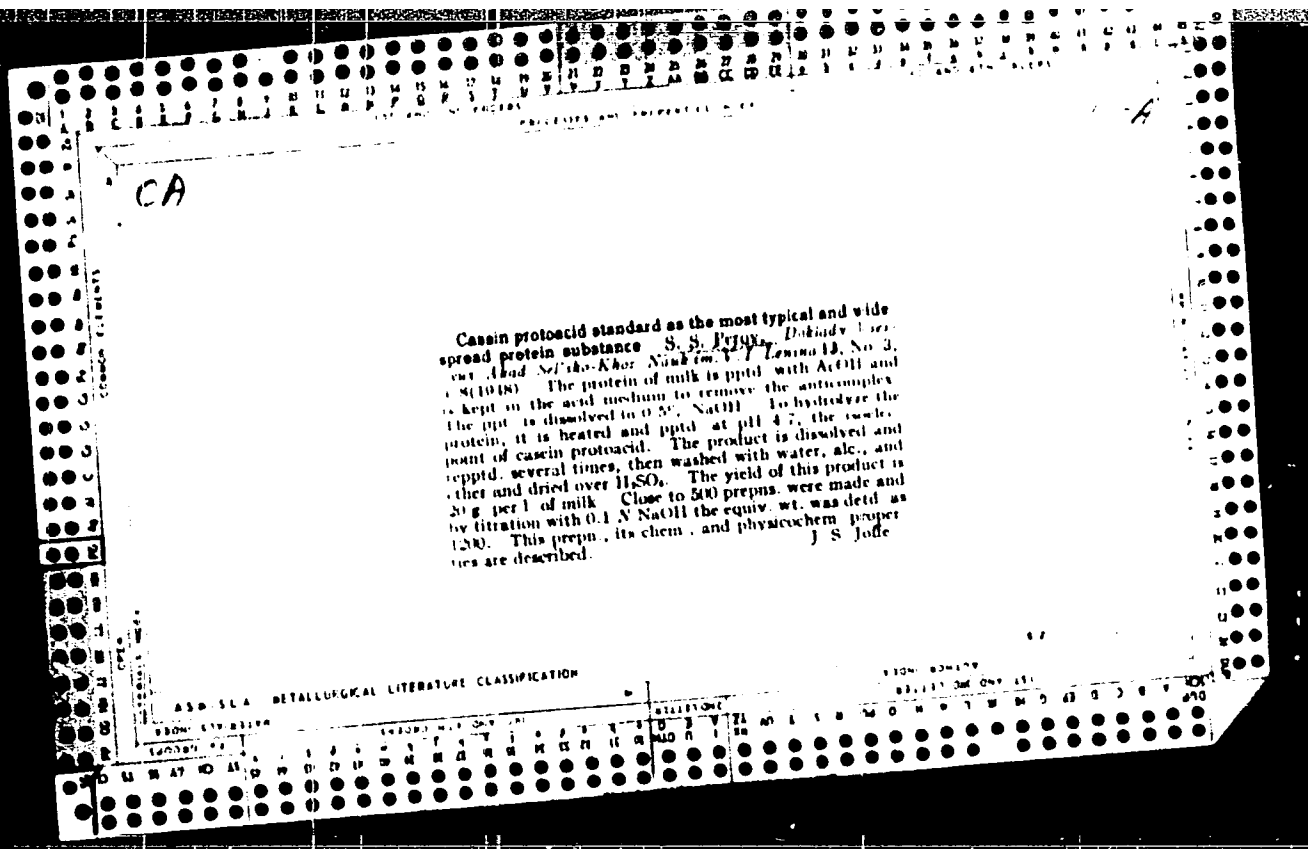
USSR/Chemistry - Albumin (Contd)

Oct 48

can be obtained from substrata of seeds by simple
method. It can be mixed into cattle feed in
relatively large proportions. Submitted 7 Aug 48.

PEROV, S. S.

33/49115



PROCESSING AND PROPERTIES INDEX																									
CA 11 A The loss in weight of purest albumin protoacid at 105°. S. S. Petrov. <i>Doklady Vsesoyuz. Akad. Nauk SSSR</i>. <i>Nauk. Ser. V. I. Lenin</i> 13, No. 6, 3-12(1948).—After a brief discussion on the relation of H₂O content in proteins to aging of animals and human subjects and on the chem- reactions associated, with the loss of H₂O from casein proto- acid, P. shows that at 100-105° the loss of H₂O from this acid (cf. C.A. 42, 6396g) took place at the expense of 2 carboxyls. H₂O can be removed from this acid with alc., indirectly with H₂SO₄, by aerating, or drying at 105°. The casein protoacid pptd. at the isoelec. point contains up to 85% H₂O, of which 30% is held mechanically, 50% colloidally, 1.8% constitutionally and 0.74% chemically. J. S. Joffe																									
U.S. S. R. METALLURGICAL LITERATURE CLASSIFICATION																									

PEROV, S.

Perov, S.: "The problem of making rational use of the blood of livestock",
Myas. Industriya, 1949, No. 1, p. 81-84.

SO: U-3042, 11 March 53, (Letovis 'nykh Statey, No. 10, 1949).

PEROV, S.S.

25865

Voprosy obrabotki gruykh kormov dlyn povysheni ish perevarimosti. Trudy Vsesoyuz. nauch-issled. in-ta zhivotnovodstva, T. XVI, 1949, s. 206-17.
Po-bolshevistski proveden zhizn'resheniya plenuma TS.K. KP. (b) B. sm. 25432.
Podgotovka kolkhoznykh veterinarnykh izhivotnovodcheskich kadrov-v tsentr vnimaniya. sm. 25910

SO: Letopis' No. 34

12

CA

Simple methods of improving the feeding properties of straw. S. S. Petrov. Doklady Vsesoyuz. Akad. Nauk SSSR, 1957, No. 1, 1. Lenin 19, No. 4, 3. 4 (1957).
-Straw or straw and chaff treated with alkali salts of Na, (quantities or concn. not given), carbonates, and phosph. phosphate, and digested in an alk. environment have proved to be more digestible than the untreated straw. Animals consuming the treated straw use more water.
J. S. Joffe

PEROV, S. Acad. and MIRILLOV, V. Master of Tech. Sci.

"Russian Republic Ministry of Local Industry Does Little About New
Technology and Saving Food Raw Materials," Izvestiya, 15 Dec 55

Current Digest of Soviet Press, VII, No.50, 25 Jan 56

PEROV, S.S.

INIKHOV, Georgiy Sergeyevich, sasluzhennyy deyatel' nauki i tekhniki,
doktor khimicheskikh nauk, professor; PEROV, S.S., retsenzent;
SEMKINETS, Z.F., retsenzent; GORYAYEV, M.I., spetsredaktor;
AKIMOVA, L.D., redaktor; GOTLIB, E.M., tekhnicheskiy redaktor

[Biochemistry of milk and milk products] Biokhimiya moloka i
molochnykh produktov. Moskva, Pishchepromizdat, 1956. 294 p.
(MIRA 10:1)

(Milk--Analysis and examination)

PEROV, S. S.

The amino acid analysis of proteins. S. S. Perov.
Doklady Vsesoyuz. Akad. Nauk SSSR. Ser. Khim. Nauk. V. 1.
Lenina 21, No. 3, 32-4 (1956).--A crit. review of the paper
by Leviant, et al. (*C.-i.* 46, 5100d), who claimed to be able
to identify protein preps. by analyzing for their amino
acids. P. cites their data on a no. of proteins and compares
their analyses with those of others and shows the discrepan-
cies. I. S. Ioffe.

PEROV, S.S., academic.

Initial analytic methods for studying animal proteins. Dokl. Akad.
sol'khoz. 21 no.9:7-1- '56. (MIRA 9:10)
(Proteins)

PEROV, S.S., akademik; SADOKOVA, A.P., kandidat biologicheskikh nauk.
MUSCLE PROTEINS

Muscle proteins of farm animals. Dokl.Akad.sel'khoz.22 no.5:22-24
'57. (MLA 1957)

(Proteins) (Muscle)

PEROV, S.S., akademik.

... ..

Some errors in the reasoning and behavior of the advocates of
artificial insemination. Zhivotnovodstvo 20 no.4:87 Ap '58.

(Artificial insemination)

(MIRA 11:3)

MATSKEVICH, V.V., LOBANOV, P.P., CHEKMEDEV, Ye.M., SERIYABIN, K.I., LOZA, G.M.,
POPOV, I.S., ~~PEROV~~, S.S., SINYAGIN, I.I., YAKUSHKIN, I.V.,
NIKOLAYEV, A.I., RCSTOVITSEV, H.F., YUDIN, V.M., POPOV, E.F.,
RKO'EIN, A.P., SMETNEV, S.I.

E.F.Liskun. Dokl. Akad. sel'khoz. 23 no. 5:48 '58. (MIRA 11:8)
(Liskun, Efim Fedotovich, 1873-1958)

PEROV, S.S., akademik; SADAKOVA, A.P., kand. biol. nauk.

Qualitative analysis of the protein content of the liver of cattle.
Dokl. Akad. sel'khoz. 23 no.8:23-26 '58. (MIRA 11:8)
(Protein metabolism) (Liver)

PFROV, S.S., akademik; SADOKOVA, A.P., kand. biol.nauk

Calcium salts of casein protoacid, their production and importance
for the organism. Dokl. Akad. sel'khoz. nauk no.10:31-33 1961.

(MIRA 18:14)

1. Institut fiziologii i biokhimii sel'skokhozyaystvennykh
zhivotnykh.

USSR / Farm Animals. General Problems.

Q-1

Abs Jour : Ref Zhur - Biol., No. 14, 1958, No 64399

Author : Perov, S.S.; Sadokova, A. P.

Inst : All-Union Ordena Lenin Academy of Agricultural Sciences
imeni V. I. Lenin

Title : The Proteins in the Muscles of Farm Animals.

Orig Pub : Dokl. VASKhNIL, 1957, No. 5, 30-34.

Abstract : In the muscles of farm animals, there are two types of proteins: albuminous muscle proteic acid in the amount of 70-80% of the total nitrogen, and albuminous anti-complex, characterized by opposite properties - solubility in water, hydrophobic nature, and high surface activity. The muscle proteic acid and anti-complex respond positively to protein reactions. The rations of young animals should contain 70-80% of albuminous proteic acid out of the total amount of nitrogenous substances.

Card 1/1

IVANOV, A.Ye.; KOZLOVSKIY, N.G.; KALICHENKO, S.V., redaktor; MART'YANOV,
F.M., redaktor; ~~PEROV~~, S.V., redaktor; PYLAYEVA, A.P., redaktor;
TERESHCHENKO, N.I., redaktor; OVCHINNIKOVA, A.E., redaktor;
BAKITINA, Ye.D., redaktor; VALLOD, A.I., tekhnicheskij redaktor;
VNSKOVA, Ye.I., tekhnicheskij redaktor

[Handbook for directors of state farms] Spravochnaya kniga direktora
sovkhoza. Izd. 3-e, perer. Moskva, Gos. izd-vo sel'khoz. lit-ry.
Pt.1.1956. 952 p. Pt.2.1956. 1016 p. (MLB 10:3)
(State farms)

PEROV, S.V.

DEBET, A.A.; DZYUBA, M.L.; YUROVITSKIY, Ye.I.; GHRASINOV, P.K., red.;
KARAVAYEV, A.A., red.; PEROV, S.V., red.; SAVNL'YEV, B.V., red.;
YAKUSHKIN, I.V., red.; VESKOVA, Ye.I., tekhn.red.; PEYZLER, V.I.,
tekhn.red.

[Yearbook for the collective farm worker for 1958] Kalendar'
kolkhoznika na 1958 god. Moskva, Gos. izd-vo sel'khoz. lit-ry,
[1957] 175 p. (MIRA 11:6)
(Agriculture--Yearbooks)

DEMEZEB, A.A.; DZYUBA, M.L.; YUROVITSKIY, Ye.I.; GERASIMOV, P.K., redaktor;
KARAVAYEV, A.A., redaktor; PEROV, S.V., redaktor; SAVEL'YEV, B.V.,
redaktor; YAKUSHKIN, I.V., redaktor; VESKOVA, Ye.I., tekhnicheskii
redaktor

[Collective farmer's almanac for 1957] Kalendar' kol'khoz'nika na
1957 god. Moskva, Gos. izd-vo sel'khoz. lit-ry [1956] 175 p.
(Almanacs) (Agriculture) (MLRA 9:12)

TELYATNIKOV, N.N.; VARUNTSYAN, I.S., akademik, redaktor; GLUSECHENKO, I.Ye., doktor biologicheskikh nauk, redaktor; YENIKYEV, Kh.K., kandidat biologicheskikh nauk, redaktor; OL'SHANSKIY, M.A., akademik, redaktor; PEROV, S.V., kandidat ekonomicheskikh nauk, redaktor; PREZENT, I.I., akademik, redaktor; KHALIFMAN, I.A., kandidat biologicheskikh nauk, redaktor; YAKOVLEV, P.N., akademik, redaktor; BALLOD, A.I., tekhn. red.

[Michurin science in the service of the people; a collection of articles] Michurinskoe uchenie na sluzhbu narodu; sbornik statei. Moskva, Gos.izd-vo selkhoz.lit-ry. No.1. 1955. 269 p.

(MIRA 9:4)

1. Vsesoyuznaya Akademiya sel'skokhoziaistvennykh nauk imeni V.I. Lenina.

(Michurin, Ivan Vladimirovich, 1855-1935) (Plant breeding)

DIMEZER, A.A., redaktor; DZYUBA, M.L., redaktor; YUROVITSKIY, Ye.I.,
redaktor; GERASIMOV, P.K., redaktor; KARAVAYEV, A.A., redaktor;
PEROV, S.V., redaktor; SAVEL'YEV, B.V., redaktor; YAKUSHKIN, I.V.,
redaktor; PERESYPKINA, Z.D., tekhnicheskii redaktor

[Collective farm worker's calendar for 1955] Kalendar' kolkhosnika
na 1955 god. Moskva, Gos. izd-vo selkhoz. lit-ry. [1954] 174 p.
[Microfilm] (MLRA 9:8)
(Agriculture--Yearbooks)

PEROV, V.; BATUGINA, I., marksheyder (g.Kiselevsk); CHICHINDAYEV, D.

Response to "Master ugl'n" articles. Mast.ugl. 9 no.5:22 My '60.
(MIRA 13:7)

1. Zaveduyushchiy otделom massovoy raboty Dvortsa kul'tury shakhterov, g.Nelidovo (for Perov). 2. Shakhta No.12, Kemerovskoy oblasti (for Chichindayev).

(Working men's clubs)

ACC NR: AN7004484

SOURCE CODE: UR/9012/67/000/041/0003/0003

AUTHOR: Perov, V. (Candidate of technical sciences)

ORG: none

TITLE: Automatic information

SOURCE: Pravda, no. 41, 10 Feb 67, p. 3, cols. 5-7

TOPIC TAGS: automation, automation equipment, *information processing, computer program logic*

ABSTRACT:

At the All-Union Institute of Scientific and Technical Information, work has started on the development of automatic information-logic systems based on electronic computers. An information system has been planned for the mechanical processing of information on the properties and uses of 20,000 individual inorganic compounds. Even a full processing does not exceed 15-20 min, and sometimes only 30 to 35 sec.

SUB CODE: 09/3/SUBM DATE: none/ ATD PRESS: 5114

Card 1/1

UDC: none

PEROV, V

AID P - 4664

Subject : USSR/Aeronautics - Training (DOSAAF)
Card 1/1 Pub. 58 - 4/14
Author : Perov V., Member of the Komsomol Committee, Moscow
Aviation Institute
Title : A students' aeroclub
Periodical : Kryl. rod., 3, 6-7, Mr 1956
Abstract : The article narrates the foundation, the development and the achievements of the Students' Aeroclub of the Moscow Aviation Institute (MAI). Institute's DOSAAF organization is praised for the assistance it is giving to the Club. No factual data of informative value. 13 photos of the members of the Club having the title of sportsmen.
Institution : ~~None~~ *Moscow Aviation Inst.*
Submitted : No date

ANDREYEV, Sergey Yefimovich; ZVEREVICH, Viktor Vladimirovich; PEROV,
Valentin Aleksandrovich; VERKHOVSKIY, I.M., prof., retsenzent;
FREYGERZON, G.I., dots., retsenzent; RUDENKO, K.G., dots.,
retsenzent; OLEVSKIY, V.A., kand. tekhn. nauk, retsenzent;
RYKCV, N.A., otv. red.; GARBER, T.N., red. izd-va; IL'INSKAYA,
G.M., tekhn. red.

[Crushing, milling, and screening minerals] Droblenie, izmel'-
cherie i grokhochenie poleznykh iskopayemykh. Moskva, Gosgor-
tekhizdat, 1961. 384 p. (MIRA 15:9)

(Ore dressing)

9.6100 (1051, 1057)

AUTHOR: Perov, V.A., Engineer

31655

S/549/61/000/103/004/005/
D033/D113

TITLE: Contribution to the problem of selecting a rational scheme for
a horizon simulator

SOURCE: Moscow. Vyssheye tekhnicheskoye uchilishche. [Trudy] no. 103, 1961.
Opticheskoye priborostroyeniye, 103-111.

TEXT: The article deals with the selection of the basic, most practicable schemes for projecting the line of horizon onto the screen of a specialized flight simulator. Plane and spherical screens are discussed. For the former, the author suggests that the projector be placed behind the screen, and that the projection and optical system developed at the MVTU (Fig.3) be adopted. In this system, the technical design of which is already completed, the prism and mirror are mobile parts. The former simulates changes in the angle of bank and the latter changes in the angle of pitch. These parts are selected so that the final angle on the screen is double that read on these elements. For spherical screens, the author recommends the method of "shadow projection" based on the principle that sharp images are obtained if a diapositive, illuminated by a pointed source of light, is projected on a screen. A wide angle of variation of projection can thus be achieved, and the problem of realisti-

Card 1/A₂

YEVDOKIMOV, Pavel Dmitriyevich; PEROV, V.A., dotsent, kand.tekhn.nauk,
retsenzent; NIKOL'SKIY, D.A., inzh., retsenzent; USHAKOV, M.V.,
inzh., retsenzent; KONTSEDALOV, A.I., inzh., retsenzent;
VOL'PERT, B.M., inzh., otv.red.; GARBER, T.N., red.izd-va;
PROZOROVSKAYA, V.L., tekhn.red.; BOLDYREVA, Z.A., tekhn.red.

[Design and operation of a tailings storage department in
ore-dressing plants] Proektirovanie i ekspluatatsiya khvosto-
vykh khoziaistv obogetitel'nykh fabrik. Moskva, Gos.nauchno-
tekhn.izd-vo lit-ry po gornomu delu, 1960. 417 p.

(MIRA 14:3)

(Tailings (Metallurgy))

ANDREYEV, Sergey Yefimovich; ZVEREVICH, Viktor Vladimirovich; PEROV, Valentin Aleksandrovich; VERKHOVSKIY, I.M., prof., retsenzent; FREYGERZON, G.I., dots., retsenzent; RUDENKO, K.G., dots., retsenzent; OLEVSKIY, V.A., kand. tekhn. nauk, retsenzent; RYKOV, N.A., otv. red.; GARBER, T.N., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[Crushing, milling, and screening of minerals] Droblenie, izmel'chenie i grokhochenie poleznykh iskopaemykh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 384 p.
(MIRA 15:3)

(Ore dressing)

PEROV, V A

25(6); 14(5)

PHASE I BOOK EXPLOITATION

80V/2778

Andreyev, Sergey Yefimovich, Vyacheslav Vladimirovich Tovarov, and Valentin Aleksandrovich Perov

Zakonnernosti izmel'cheniya i ischisleniye kharakteristik granulometricheskogo sostava (Regularity Patterns in Grinding and Calculation of Characteristics of Granulometric Composition) Moscow, Metallurgizdat, 1959. 437 p. Errata slip inserted. 3,400 copies printed.

Ed.: V.A. Rundkvist; Ed. of Publishing House: M.L. Yezdokova; Tech. Ed.: L.V. Dobuzhinskaya.

PURPOSE: This book is intended for engineering and technical personnel in ore-dressing plants, cement plants, research laboratories, design bureaus, and institutions of higher education.

COVERAGE: The author discusses frequently observed patterns in the granular composition of finely ground brittle products. A new method for calculating the average grain diameter, dependent on specific properties, is presented. Results of theoretical and experimental studies of 1) the kinetics of content

Card 1/10

Regularity Patterns (Cont.)

SOV/2778

change in coarse grains, and 2) changes in grain surfaces during the process of mill grinding are described. The changes in grain surfaces depend on the characteristics of the material ground, the specific consumption of energy, and other factors. Determination of the grindability of materials, mill performance, and the evaluation of mill productivity are also discussed. No personalities are mentioned. References follow each part.

TABLE OF CONTENTS:

Preface	3
Introduction	5
PART ONE. REGULARITY PATTERNS IN THE GRANULOMETRIC COMPOSITION OF GROUND MATERIALS	
Ch. I. Characteristics of Particle Size	9
1. Determining granulometric composition	9
2. Graphical interpretation of data on granulometric analysis. System of "Index Numbers"	11

Card 2/10

Regularity Patterns (Cont.)

SOV/2778

3. Distribution curves	17
4. The importance of analytical expression of regularity patterns in grain distribution according to size	22
Ch. II. Review of Works on the Study of Regularity Patterns in Granulometric Composition	25
1. Martin equation	25
2. Heywood equation	28
3. Gaudin - Andronyev equation	29
4. The work of Weinig	35
5. Equation of characteristics according to the logarithmic normal law of distribution	40
6. Rosin and Rammner equation	47
7. The work of Zagustin	52
8. Roller equation	53
9. The work of Griffith	56
Ch. III. Analysis and Comparison of Equations of Distribution and Characteristic Curves	60
1. Form of theoretical and experimental granulometric distribution curves	60

Card 3/10

Regularity Patterns (Cont.)

SOV/2778

2. Comparison of equations	65
Ch. IV. Determining Surface and Number of Grains of a Material With a Gramulc- metric Composition Which Follows Certain Equations	76
1. General considerations	76
2. Computations based on the Rosin-Rammler equation	79
3. Computations based on the Gaudin-Audreyev equation	82
Bibliography	84

PART TWO. CALCULATING AVERAGE DIAMETER OF A MIXTURE OF MINERAL GRAINS

Ch. I. Diameter of a Single Grain and the Average Diameter of a Mixture of Grains	86
1. General information	86
2. Actual diameter	93
3. Average, planned, and statistical diameters	95
4. Equivalent spherical diameter	96
5. Sphericity and circularity	98

Card 4/10

city patterns (Cont.)

SOV/2778

Ch. II. Statistical Formulas for the Average Diameter of a Mixture of Grains	100
1. Averages of mathematical statistics	100
2. Formulas of average diameter at numerical and weight granulometric characteristics	104
3. Average diameter of narrow size-range fractions	108
Ch. III. Formulas Recommended for Computing Average Diameters of Grains in Mixtures	110
1. Formulas of mathematical statistics	110
2. Mellor formula	115
3. Rosin average diameter	117
4. Coghill average diameter	118
5. Dolik average diameter	121
Ch. IV. Deriving Average Diameter Formulas Based on Characteristic Properties	123
1. Characteristic property of a statistical aggregate	123
2. Deriving formulas based on the numerical characteristics of a granulometric composition	125
3. Deriving formulas based on the weight characteristics of a granulometric composition	129

Card 5/10

Regularity Patterns (Cont.)

SOV/2778

4. Deriving formulas based on a specific characteristic property	131
5. Examples of deriving formulas based on a characteristic property	136
Ch. V. Computation of the Average Diameter	146
1. Computing average diameter according to data from granulometric analysis	146
2. Computing average diameter on the basis of parameters of power equations of granulometric characteristics	149
3. Computing average diameter on the basis of parameters of a normal logarithmic equation for the distribution curve	154
4. Dependence of type of simplified formulas on granulometric characteristics and the characteristic property	163
5. Computing average diameter when granulometric characteristics are unknown	169
6. Effect of granulometric characteristics on the average diameter of the wide size-range class	173
7. Dependence of the size of the average diameter on the size range of the averaged fraction	175
Ch. VI. Brief Review of Works on the Determination of Average Diameter	178
Card 6/10	

Regularity Patterns (Cont.)

SOV/2778

Bibliography

185

PART THREE. REGULARITY PATTERNS IN MILL GRINDING

Ch. I. Basic Equation of the Kinetics of Grinding	187
1. Criteria of Fineness in grinding	187
2. Review of works on the kinetics of the grinding process	188
3. Theoretical derivation of the kinetics of the decrease in coarse-grain content during grinding in intermittent mills	193
4. Deviations from the theoretical relationship and its causes	208
5. Basic equation for the kinetics of actual grinding conditions	212
Ch. II. Experimental Verification of the Basic Equation for the Kinetics of Grinding	214
1. Application of special grids for verification of the equation for the kinetics of grinding	214
2. Calculating parameters of the equation for the kinetics of grinding	218
3. Laboratory testing in grinding mills	219
4. Analysis of experimental grinding data by other investigators	220

7-1 10/10

Regularity Patterns (Cont.)

807/2778

Ch. III. Physical Meaning of the Parameters of the Equation for the Kinetics of Grinding and Their Dependence on Grinding Conditions and Properties of Materials	247
1. Parameters, K_p , K_o and n	247
2. Parameter m	257
Ch. IV. Application of the Basic Equation for the Kinetics of Grinding in Analyzing Grinding Processes and Investigating the Grain Composition of Materials	262
1. Graphical method of the analysis of the grinding process in mills	262
2. Investigating the grain composition of materials ground in mills	270
Ch. V. General Equation for the Kinetics of Grinding	284
1. Deriving the general equation	284
2. Experimental verification of the applicability of the general equation in industrial grinding	293
Ch. VI. Kinetics of the Increase of Surface in Ball-mill Grinding	306
1. Importance of the problem	306

Card 8/10

Regularity Patterns (Cont.)

SOV/2778

2. Measuring the specific surface	310
3. Laboratory mill tests	321
4. Industrial mill tests	335
Ch. VII. Relationship Between Specific Surface and Residues on Testing Screens	342
Ch. VIII. Grindability of Materials	356
1. Review of methods	356
2. Analysis of methods for determining grindability	366
Ch. IX. Calculating Mill Productivity	375
1. Review of methods	375
2. Analysis of methods of computing mill productivity	382
3. Method of calculating productivity based on usable power and specific productivity	389
4. Relationship between mill productivity and coarse-grain content in the ground product	400
5. Relationship between mill productivity and continuity of	408
Ch. X. Technical Measuring of Ball-mill Work	410

Card 9/10

RUDE, S.K., gor'yye tekhn. i tekhn. nauk

Triering during normal operating conditions of a ball mill
Dor. zhur. tekhn. nauk. 1964

1. Leningradskiy gor'nyy inzheneri

PEROV, V.A.

Calculating the efficiency of screens. Obog. rud 4 no.2:9-12
'59. (MIRA 14:8)
(Screens (Mining))

MUZYLEV, Lev Tikhonovich, kand.tekhn.nauk; ISSINSKIY, Viktor Vladimirovich;
PEROV, Valentin Alekseyevich; KOPRELEVICH, Ye.I., red.; MEDVADEV,
L.Ya., tekhn.red.

[Wool comb with periodic action; working principle, servicing,
assembling, and adjustment] Grebnechesal'naya mashina periodi-
cheskogo deistviia dlia shersti; ustroistvo, obsluzhivanie,
montazh i naladka. Pod obshchey red. L.T.Muzyleva. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po legkoi promyshl., 1959. 178 p.
(MIRA 13:5)

(Combing machines)

ZMIGEROVSKIY, E.N.; PEROV, V.A., dozent

Reorganizing and expanding ore-dressing plants at the Khatity
Combine. Trudy Mekhanobr no.102:233-253 '57. (MIRA 11:9)
(Khatity--Ore dressing)

ANDREYEV, Sergey Yefimovich; TOVAROV, Vyacheslav Vladimirovich;
PEROV, Valentin Aleksandrovich; MUNDKVIST, V.A., red.;
YEZDOKOVA, M.L., red.izd-va; DOBUZHINSKAYA, L.V., tekhn.red.

[Regularities of comminution and estimation of granulometric
composition characteristics] Zakonomernosti izmel'chenia
i ischislenie kharakteristik granulometricheskogo sostava.
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po cherno i tsvetnoi
metallurgii, 1959. 437 p. (MIRA 12:8)
(Crushing machinery) (Particle size determination)

PEROV, V. A.

Author: Perov, V. A.

Title: Crushing of ores. (Izmel'chenie rud.) 220 p.

City: Leningrad

Publisher:

~~Publication~~ State Sci-Tech Pub. of the Eng. Iron and Ferrous Metallurgy

Date: 1950

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 4, No. 3, June, 1951

PA 26142

USSR/Metals
Ore Dressing
Iron Ores

Oct 1947

"Dressing Iron Ore with Heavy Suspensions," V. A. Petrov, 4 1/2 pp

"Gornyy Zhurnal" No 10

Description of the dressing processes used by the Garrison Plant in Minnesota and the Merrit Plant near Crosby Minnesota. Tables of operation and schematic diagram of the plant layout. In the USSR this method could be adapted for dressing iron and manganese ores where jigging would permit continuous operation. The adoption of this method, according to

USSR/Metals

(Contd)

Oct 1947

to the author, could improve the quality and quantity of dressed ores in the USSR.

Petrov, V. A.

P'ADEYEV, Vasilii Ivanovich; PEROV, V.A., nauchnyy red.; SALITA, Ye.G.,
red.; NIKOL'SKIY, D.A., retsenzent; PRUMKIN, P.S., tekhn.red.

[Modern equipment for the crushing and comminution of ores]
Sovremennoe oborudovanie dlia drobleniia i izmel'cheniia rud.
Leningrad, 1959. 241 p. (Leningrad. Nauchno-issledovatel'skii
i proektnyi institut mekhanicheskoi obrabotki poleznykh isko-
paemykh. Trudy, no.123). (MIRA 13:7)
(Crushing machinery) (Ore dressing—Equipment and supplies)

PEROV, V. N.

Ore dressing. Leningrad. Gos. nauchno-techn. iss-vo lit-ry po Chernoi i tsvetnoi metallurgii, 1950. 220 p. (51-27947)

TN510.F4

SOV/137-58-8-16269

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 5 (USSR)

AUTHOR: Zmicherovskiy, E.N. Perov, V. A.

TITLE: Reconstruction and Expansion of the Concentration Plants of the Apatite Kombinat (Rekonstruktsiya i rasshireniye obogatatel'nykh fabrik kombinata Apatit)

PERIODICAL: [Tr.] Vses. n.-i. i proyekt. in-ta mekhan. obrabotki poleznykh iskopayemykh, 1957, Nr 102, pp 238-253

ABSTRACT: Flowsheets for the First and Second apatite-and-nepheline plants of the Apatite Kombinat are described and presented. A.Sh.

1. Industrial plants--USSR 2. Apatite--Production 3. Nephelite
--Production

Card 1/1

PEROV, V.A.; VASIL'YEVA, A.A.

Kinetics of milling two-component mixtures in a ball mill.
Gor. zhur. no.7:69-70 J1 '61. (MIRA 15:2)

1. Leningradskiy gornyy institut.
(Ore dressing)

PEROV, V.A., prof.; UDA olvira, 28.

Grinding in ball mills with noncatastrophic working conditions.
Rev min 16 no.1:9-12 Ja '85.

1. Mining Institute, Leningrad for Perov.

PEROV, V.F.

Origin of canyons in the Khibiny Mountains. Trudy Khib.geog.
sta.MGU no.1:119-130 '60. (MIRA 15:5)
(Khibiny Mountains.-Canyons)

PEROV, V.F.

First glacier in the Khibiny Mountains. Priroda 47 no. 7:88
Jl '58. (MIRA 11:8)

1. Khibinskaya geograficheskaya stantsiya Moskovskogo gosudarstvennogo
universiteta im. M.V.Lomonosova.
(Khibiny Mountains--Glaciers)

PERIV, V.F.

Classification of snow banks in mountainous countries. Inform.
sbor. o rab. Geog. fak. Mosk. gos. un. po Mezhdunar. geofiz. godu no. 3: 1-11
'58. (MIRA 13:5)

(Snow)

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6,
p 27 (USSR) 14-57-6-11835

AUTHOR: Perov, V. F.

TITLE: Asymmetrical Erosional Forms (Ob asimmetrii erozionykh form)

PERIODICAL: Uch. zap. Mosk. un-ta, 1956, Vol 182, pp 143-152

ABSTRACT: The author points out that existing theories on the origin of asymmetry (A) in erosional forms fall into two categories: those which attribute it to general planetary conditions or processes, and those which attribute it to local conditions. The present analysis of the causes of A is based on observations made by the author on the right bank of the Volga River near Stalingrad and Saratov. Assuming a level plain and disregarding the influence of local morphological factors, A of erosional forms is apparently related

Card 1/3

PERCV, V.F.; TABUNINA, M.A., red. izd-va; BOROVNEV, N.K., tekhn. red.

[Pamphlet on safety techniques for gas welders] Pamiatka po tekhnike
bezopasnosti dlia gazosvarshchika. Moskva, Gos.izd-vo lit-ry po
stroit., arkhitekt. i stroit. materialam, 1961. 31 p. (MIRA 14:6)
(Gas welding and cutting--Safety measures)

PEROO, V. F.

THE I. K. K. EXPEDITION

3(3,4)

Informations about a bookish Geograficheskoye razvedaniye vzhivskoye
Informatsionnoye razvedaniye po vzhivskoye razvedaniye vzhivskoye
Informatsionnoye razvedaniye po vzhivskoye razvedaniye vzhivskoye
No 1 (Collection of Information on Work Done by the Geography Depart-
ment of Moscow University for the International Geographical Year, Nr 1)
Moscow, 1958. 298 p. Prints ally lasered, 500 copies printed.

Prof. M. O. E. Tushinsky, Professor

PREFACE: This book is intended for earth scientists, particularly those
interested in glacial phenomena.
CONTENTS: This book describes the activities of the Geography Department of
Moscow State University in connection with International Geographical Year.
The work is divided into 4 parts, each dealing with a specific regional ex-
pedition. These are: the Mount Elbrus Expedition, the Khibiny Expedition,
the Peary Expedition, and the Antarctic Expedition. Additional articles
discuss problems in glaciology and research techniques. References ac-
company each article.

THE I. O. Y. ELBRUS EXPEDITION

3
Tushinsky, O. E. Glaciological Work on Mount Elbrus
Rochester, N. H. Thesis of the last Glaciation in Priel'nyus'ye
(Mount Elbrus District) 59
Shteynberg, L. M. Observations of Snow and Freezing Processes on
the Southern Slope of the Elbrus 108
Shteynberg, A. V., I. B. Zaykov, and I. A. Leyko. Contents and Symbols
of Large-Scale Glacier Maps 111
Shteynberg, L. M. Preliminary Data on the Application of the Spore-
Folien Method on Elbrus Glaciers 124
Kiselev, M. D. Remote-Control Equipment and Methodology Used in Study-
ing the Temperature of the Elbrus Ice Cover 129

THE I. O. Y. KIBINY EXPEDITION

133
Gerasimov, L. M. Preliminary Information on the Work of the Khibiny
Station for the International Geophysical Year 138
Petrov, V. P. Climatic Conditions of Snow and Ice Melting 148
Gerasimov, L. M. Study of the Moisture Status of Soils and Grounds 156
Shteynberg, V. V. The Problem of Epithermal Conditions of the Soils
of the Khibiny Mountain Range 206
Petrov, V. P. The First Glacier in the Khibiny Region 209

THE I. O. Y. PEARY EXPEDITION

209
Gerasimov, L. M. Preliminary Information on the Work of the
Peary Expedition of the International Geophysical Year 217
Kiselev, M. D. Preliminary Results of the Biogeographic Soundings of the
Antarctic Snow Cover During the First Series: Antarctic Expedition of the
Academy of Sciences, USSR, 1955-57

GENERAL PROBLEMS OF GLACIOLOGY AND THE STUDY OF PERMAFROST

219
Rozhnova, A. I. The Glacial-Geological Zoning of the Permafrost Area in the
USSR 239

RESEARCH METHODS

263
Kiselev, M. D., and V. A. Tushinsky. Method of Collecting Ice Samples
for the Spore-Folien Analysis 268
Kiselev, M. D. Mechanical Drilling of a Freshwater Firm 272
Shteynberg, L. M., and O. E. Tushinsky. Staligraphy of Snow as an In-
dicator of the Characteristics of Natural Region Complexes

807/2355

3(3.4)

Appendix 1

[illegible]

Dr. A. A. Sushinsky, Professor

REVIEW: This book is intended for earth scientists, particularly those

SUBJECT: This book is concerned with the problems of the geographer interested in glacial phenomena.

CONTENTS: This book describes the activities of the Geographical Department of the University of Cambridge, and the work of the Cambridge Glaciology Group. The book is divided into two parts, each dealing with a different aspect of the work. The first part, 'The Cambridge Glaciology Group', describes the work of the group, and the second part, 'The Cambridge Glaciology Group', describes the work of the group. The book is written in a clear and concise style, and is suitable for students and researchers alike. The book is published by Cambridge University Press, and is available in paperback and hardcover editions. The book is a valuable contribution to the field of glaciology, and is a must-read for anyone interested in the subject.

THE I.O.O.F. - Sources of Ancient

422

五

5

For name, address, etc., see page 10

SECRET

609

Page 30 of 30

inkling, To 8-7-77, Process 12, 6, 6

4

DEPARTMENT OF COMMERCE

1

RESEARCH

26-58-7-19/48

AUTHOR: Perov, V.F.

TITLE: The First Glacier in Khibiny (Pervyy lednik v Khibinakh,

PERIODICAL: Priroda, 1958, Nr 7, p 88 (USSR)

ABSTRACT: During field investigations for purposes of the IGY a small firn glacier was discovered in the Khibiny Mountains. It is situated in the northern part of the Lyavochorr Massif on the elevations of a short trough-like valley of the first right-hand affluent of the Kaliok river. The extended body of the glacier resembles the shape of an amphitheater. Its total extent is 300 x 80 m or 0.02 sq km. Its upper edge is 1,073.2 m high with an altitude mark of 1,172 m of the massif. The glacier's position and shape indicate that it belongs to the type of the blown-together, immobile firn glacier. It faces almost directly north, the azimuth of its axis equals 350°. Its surface slopes 34 to 36°. The discovery of this glacier is not accidental. The occurrence of drift snow and avalanches suggested the possibility of embryonic glaciers in these mountains. This opinion was held for a long time by I.K. Tikhomirov and Professor G.K. Tushinskiy.

Card 1/2 There is 1 photo.

The First Glacier in Khibiny

26-58-7-19/48

ASSOCIATION: Khabinskaya geograficheskaya stantsiya Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova (The Khibiny Geographical Station of the Moscow State University imeni M.V. Lomonosov)

1. Glaciers--Characteristics
2. Glaciers--Origin

Card 2/2

PEROV, V.I., kand.tekhn.nauk.

Synchronous motor with excitation by permanent magnets and
hysteresis starting. Vest. elektroprom. 32 no.3:32-38 Mr '61.
(MIRA 15:6)

(Electric motors, Synchronous)

ACC NR: AT7004929

SOURCE CODE: UR/0003/66/000/000/0096/0100

AUTHOR: Zhelkover, T. D. (Moscow); Perov, V. I. (Moscow); Tarasova, L. S.

ORG: none

TITLE: Effect of automatic monitoring and switchover devices on reliability of systems with redundancy

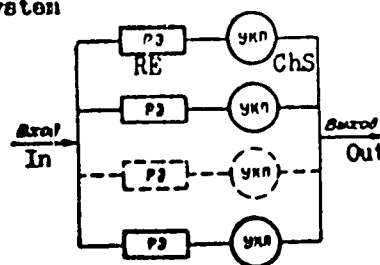
SOURCE: Vses. konf. po avtomatich. kontrol i metodam elektrich. izmereniy, 6th, 1964. Avtomatich. kontrol i metody elektrich. izmereniy; tr. konf., t. I: Teoriya izmerit. info. sistem (Automatic control and electrical measuring techniques; transactions of the conference, v. 1: Theory of measuring information systems). Novosibirsk, Izd-vo Nauka, 1966, 96-100

TOPIC TAGS: reliability, redundancy, automatic control system

ABSTRACT: Systems with active parallel redundancy in which reserve elements RE (see figure) are controlled by check-and-switchover ChS units is considered. Reliability of one branch under m -th load conditions is given by: $P_m = P_m^* P_{mk}$, where P_m^* - reliability

of RE under m -th conditions; P_{mk} - reliability of ChS under m -th conditions. A set of differential equations describes the

Cord 1/2



ACC NR: AT7004929

reliability conditions in terms of failure rates and r_m (probability that a branch failure is accompanied by elimination or self-elimination of RE). As a result, the probability of successful operation of the entire system is determined. These particular cases are considered: (1) Failure rates are constant in time (exponential law of distribution of reliable-operation time); (2) A definite ratio of failure rates of RE and ChS; (3) Reliability characteristics of RE and ChS do not change when the number of branches changes; starting from a certain value of the redundancy rate, the probability of successful operation decreases. When the probability of RE self-elimination is sufficiently high, ChS devices are superfluous. Orig. art has: 1 figure and 30 formulas.

SUB CODE: 09, 14 / SUPM DATE: none / ORIG REF: 004

Card 2/2

L 32613-66 EWT(d)/EWT(1)/ENP(v)/ENP(k)/ENP(h)/ENP(1) TG/CD/BC
ACC NR: AT6011929 SOURCE CODE: UR/0000/66/000/000/0078/0084

AUTHOR: Perov, V. I. (Lyubertsy); Zholkover, T. D. (Lyubertsy) 52
B+1

ORG: none

TITLE: Methods for evaluating and some ways for increasing the ^{2/}reliability of the results of automatic control

SOURCE: Vsesoyuznaya konferentsiya po avtomaticheskomu kontrolyu i metodam elektricheskikh izmereniy, 5th. Avtomaticheskii kontrol' i metody elektricheskikh izmereniy; trudy konferentsii, t. 2: ~~Imenitel'nyye informatsionnyye sistemy. Ustroystva avtomaticheskogo kontrolya. Elektricheskiye izmereniya neelektricheskikh velichin~~ (Automatic control and electrical measuring techniques; transactions of the conference, v. 2: Information measurement systems. Automatic control devices. Electrical measurements of nonelectrical quantities). Novosibirsk, Izd-vo Nauka, 1966, 78-84

TOPIC TAGS: reliability engineering, automatic control, system reliability 14

ABSTRACT: Reliability is the decisive factor in automatic control since the information gathered during the control of technological devices must reflect accurately their actual state. The quantitative measure of reliability is expressed by the probability that the result is correct. Of all the possible factors affecting the reliability of automatic control, the authors investigate only the loss of information caused by the quality of the control devices.

Cord 1/2

L 32613-66

ACC NR: AT6011929

It is assumed that the initial information on the controlled plant is complete. The newly developed formalism is applied to the control of the operational readiness of devices. Orig. art. has 26 formulas, 1 figure, and 5 tables.

SUB CODE: 09, 14 / SUBM DATE: 29Nov65 / ORIG REF: 003 / OTH REF: 002

Card

2/2

PEROV, V.I., kand.tekhn.nauk

Characteristics of synchronous motor with electromagnetic excitation
and hysteresis start-up. Vest. elektroprom. 31 no.10:5-7 0 '69.
(MIRA 15:1)

(Electric motors, Synchronous)

PEROV, V.L.; BAKHTIZINA, R.I.; ISHCHENKO, I.I.

News review. Khim. prom. 40 no.9:711 S '64.

(MIRA 12:11)

KAFAROV, V. V.; PLYUTTO, V. P.; PEROV, V. L.

Development of mathematical descriptions of the standard
processes in chemical technology. Khim prom no. 3:218-221
Mr '64. (MIRA 17:5)

PEROV, V.M.; BRODKIN, B.S.

Rescue of Belgian polar explorers. Inform. biul. Sov. antark. eskp.
no.5:61-62 '59. (MIRA 12:10)
(Antarctic regions)

PEROV, V.N.

Experience in replacing metal by cast stone and concrete. Loks. i khim.
no.9:52-54 '60. (MIRA 13:9)

1. Chumakovskaya Tsentral'naya obogatitel'naya fabrika.
(Coal preparation)
(Coke industry --Equipment and supplies)

PEROV, V. N.

USSR /Chemical Technology. Chemical Products
and Their Application

I-15

Treatment of solid mineral fuels

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31816

Author : Shlomov V.N., Voronov K.D., Perov V.N.

Title : Initiation of Closed-Cycle Handling of Water and
Sludge.

Orig Pub: Koks i khimiya, 1956, No 4, 19-22

Abstract: The change-over, at the Chumakovskaya central
coal concentration plant, to a closed cycle, by
returning the water contaminated with sludge
particles to the top of settling tanks, for
additional clarification, has made it possible
to eliminate recovery of fuel-coal sludge, which
previously amounted to 4.5%, to increase the

Card 1/2

PEROV, V. P.

103-12-2/12

AUTHOR:

Perov, V. P. (Leningrad)

TITLE:

Note on the Synthesis of Pulse Circuits and of Systems with a Pulse Feedback (Sintez impul'snykh tsepey i sistem s impul'snoy obratnoy svyaz'yu).

PERIODICAL:

Avtomatika i Telemekhanika, 1957, Vol. 18, Nr 12, pp. 1081-1097 (USSR)

ABSTRACT:

Just as in the case of continuous linear systems the optimum transmission function or weight function respectively must be determined at the synthesis of a pulse system. The characteristics of pulse systems in general display such an abstract form, that in the majority of cases no immediate possibility exists for the build-up of actual schemes. Therefore, a transformation from the mathematical expression characterizing the pulse system as a whole to the expression of the transmittance function of the continuous part of the system must be applied if an actual scheme is to be built up. This expression then permits the determination the scheme of the structure and the actual parameters of the system. In this paper a number of results obtained from investigations in this direction are given. The optimum characteristics of

Card 1/2

PHASE I BOOK EXPLOITATION

SOV/2097

28(2); 16(2)

Perov, V. P.

Statisticheskii sintez impul'snykh sistem (Statistical Synthesis of Sampled Data Control Systems) Moscow, Izd-vo "Sovetskoye radio," 1959. 453 p.
Number of copies printed not given.

Ed.: N. D. Ivanushko; Tech. Ed.: A. A. Sveshnikov.

PURPOSE: This book is intended for engineers, scientists, and graduate students specializing in appropriate fields.

COVERAGE: The book presents methods worked out by the author which make it possible to determine the block diagrams of sampled data systems and the specific values of their parameters which will guarantee the greatest operational accuracy of these systems for time-constrained transient processes in the presence of noise. Essentially the problems presented in the book pertain to the selection of methods for optimum reconstruction and linear transformation of continuous functions on the basis of the discrete data distorted by noise. The problem of synthesizing continuous linear systems is also discussed. The material contained in the book may be used in the design and analysis of linear sampled data systems, and

Card 1/10

Statistical Synthesis of Sampled Data (Cont.)

SOV/2097

partially for continuous systems. Most of the results in the book are original. The author thanks Professor Ye. P. Popov and Docent E. A. Krogius for their help in preparing the book. There are 54 references: 46 Soviet and 8 English.

TABLE OF CONTENTS:

Preface	3
Ch. 1. Characteristics of Sampled Data Control Systems	9
1. Mathematical method of studying sampled data control systems	9
2. Concept of sampled data control systems and their schematic representation	21
3. Examples of sampled data control systems. Their possible structures	30
4. Equations of a sampled data control system, its weighting and transfer functions	46
5. The relation between the characteristics of sampled data control systems which are generated from other systems by the serial connection of the operator	50
6. The relation between transfer functions of a closed-loop and corresponding open-loop sampled data control system	56
7. The relation between the weighting functions of a closed-loop and corresponding open-loop sampled data control system	60
8. Determination of the characteristics of an equivalent continuous element by the known characteristics of the sampled data control system	64

Card 2/10

Statistical Synthesis of Sampled Data (Cont.)

80V/2097

9. Determination of the characteristics of sampled data control systems generated as a result of connecting in series or parallelly several sampled data control systems with known characteristics	67
10. Solution of examples	71
Ch. 2. Errors of Sampled Data Control Systems	83
1. Elementary data from the theory of random processes	85
2. Instantaneous value of the total error of reconstruction	91
3. Dynamic error of reconstruction	94
4. Determination of the moments of the weighting function on the basis of a known transfer function of the sampled data control system	102
5. Random error of reconstruction	105
6. Statistical characteristics of the total error of reconstruction	111
7. Example of calculating errors of sampled data control systems	113
Ch. 3. Determination of the Characteristics of a Sampled Data Control System Which Guarantee a Minimum of Random Error of Reconstruction for Given Dynamic Accuracy and Given Transient Process Time	132
1. Statement of problem	132

Card 3/10

Statistical Synthesis of Sampled Data (Cont.)

SOV/2097

2. Equations for the optimum weighting function of a sampled data control system 134
 3. Determination of optimum weighting functions of sampled data control systems when the correlation of noise function is expressed exponentially 144
 4. Determination of optimum weighting functions of sampled data control systems without a statistical relation between the discrete values of random noise 149
 5. Considerations on the selection of initial data for the determination of optimum weighting functions of sampled data control systems 159
- Ch. 4. Determination of the Characteristics of a Sampled Data Control System Which Guarantees the Minimum Total Mean Square Error of Reconstruction With Given Transient Process Time 163
1. Statement of problem 163
 2. Equations for a weighting function guaranteeing a minimum total error of reconstruction 165
 3. Determination of weighting functions which are optimum from the point of view of minimum total error, when the correlation function of noise is expressed exponentially 176

Card 4/10

Statistical Synthesis of Sampled Data (Cont.)

SOV/2097

4. Determination of weighting functions which guarantee a minimum total error when the discrete values of random noise are statistically unrelated to each other.	179
Ch. 5. The Realization of Optimum Sampled Data Control Systems by Given Characteristics	196
1. Statement of problem	196
2. General methods of realizing optimum characteristics of sampled data control systems	197
3. Realization of optimum sampling servosystems whose weighting functions satisfy equation (3.60a)	202
4. Realization of optimum sampling servosystems whose weighting functions satisfy equation (3.65a)	214
5. Realization of optimum sampling servosystems with weighting functions which satisfy equations (4.54) and (4.56)	232
6. Realization of optimum sampling servosystems with weighting functions satisfying equations (4.49)	249
7. Use of derived special methods for the realization of servosystems which are optimum when there is a statistical relation between the discrete noise values	272

Card 5/10

Statistical Synthesis of Sampled Data (Cont.)

SON/2097

- | | |
|---|-----|
| 8. The realization of optimum differentiating sampled data control systems with weighting functions satisfying equation (3.60a) | 276 |
| 9. Determination of approximately optimum transformation sampled data control systems on the basis of approximately optimum sampling servosystems | 295 |
| Ch. 6. Synthesis of Sampled Data Control Systems With Variable Parameters of an Equivalent Continuous Element | 316 |
| 1. Concept of a sampled data control system with variable parameters of an equivalent continuous element | 316 |
| 2. Equation of a sampled data control system with variable parameters of an equivalent continuous element | 317 |
| 3. Relation between the characteristics of a closed-loop and corresponding open-loop sampled data control system with variable parameters of an equivalent continuous element | 319 |
| 4. Determination of the characteristics of an equivalent continuous element with variable parameters by the characteristics of the overall sampled data control system | 322 |
| 5. Errors of sampled data control systems with variable parameters of an equivalent continuous element | 323 |

Card 6/10

Statistical Synthesis of Sampled Data (Cont.)

SOV/2097

6. Optimum conditions for weighting function of a sampled data control system with variable parameters of an equivalent continuous element 325
7. Optimum weighting functions of sampled data control systems with variable parameters of an equivalent continuous element without a statistical relation between the discrete values of random noise 328
8. Realization of optimum sampled data control systems with variable parameters of an equivalent continuous element 332

Examples 333

- Ch. 7. Synthesis of Sampled Data Control Systems With Variable Period of Impulse Sequence 338
 1. Concept of sampled data control systems with variable period of impulse sequence 338
 2. Equation for a sampled data control system with variable period of impulse sequence 339
 3. The relation between the weighting function of closed-loop and open-loop sampled data control systems with variable period of impulse sequence 341

Card 7/10

Statistical Synthesis of Sampled Data (Cont.)

SOV/2097

4. The relation between the characteristics of the overall sampled data control system with variable period of impulse sequence and the characteristic of its equivalent continuous element	343
5. Errors of sampled data control systems with variable period of impulse sequence	344
6. Optimum conditions for weighting function of sampled data control systems with variable period of impulse sequence	347
7. Expressions for optimum weighting functions of sampled data control systems with variable period of impulse sequence without a statistical relation between the discrete values of random noise	350
8. Realization of optimum sampled data control systems with variable period of impulse sequence	355
Ch. 8. Special Methods of Synthesizing Continuous Systems Obtainable by Analogy With Methods of Synthesizing Sampled Data Control Systems	366
1. Stating the problem	366
2. Synthesis of continuous servosystems with minimum random and null dynamic errors when interference represents "white noise" and the "regular" signal contains only a first derivative	370

Card 8/10

Statistical Synthesis of Sampled Data (Cont.)

SOV/2097

10. Synthesis of continuous servosystems with minimum total error when interference is not "white noise" and the "regular" signal contains only a first derivative	415
11. Synthesis of continuous servosystems with minimum total error when interference is not "white noise" and the "regular" signal contains first and second derivatives	418
12. Solution of examples	421
13. Determination of approximately optimum transformations of continuous systems on the basis of approximately optimum servo-systems	434
List of Symbols Used	442
Bibliography	448
AVAILABLE: Library of Congress	

Card 10/10

LK/mg
10-29-59

PEROV, U P

SOV/30-59-1-48/57

28(1)

AUTHOR:

Morosanov, I. S.

TITLE:

Development of the Theory and the Application of Discreet Automatic Systems (Razvitiye teorii i primeneniye diskretnykh avtomaticheskikh sistem)

PERIODICAL:

Vestnik Akademii nauk SSSR, 1959, Nr 1, pp 138-139 (USSR)

ABSTRACT:

The conference dealing with this problem took place in Moscow from September 22 to 26, 1958 and was opened by V. A. Trapeznikov, chairman of the Natsional'nyy komitet SSSR po avtomaticheskomu upravleniyu (National Committee of the USSR for Automatic Control). In the Plenary Meeting Ya. Z. Tsypkin reported on discreet automatic systems and their development prospects. The work of the conference was undertaken by 5 sections. Reports were held by: 1. G. P. Tartakovskiy and V. P. Perov reported on new investigation results in the case of pulse systems with variable parameters.

Fan Ch'ung-wui dealt in his report with his successful procedures of analysis of pulse systems with several elements. F. M. Kilin spoke about the problem of an increase of the perturbation stability of the systems.

Card 1/3

FEROV, V.P.

Synthesis of pulse systems by means of the minimum summation error
reproduction. Avtom. upr. i vych. tekhn. no.2:5-49 '59.
(MIRA 13:2)

(Pulse techniques (Electronics))

PHASE I BOOK EXPLOITATION

SOV/5793

Perov, Vitaliy Pavlovich

Raschet radiolokatsionnykh sledyashchikh sistem s uchetom sluchaynykh vozdeystviy (Designing Radar Tracking Systems, Taking Into Account Random Effects) Leningrad, Sudpromgiz, 1961. 167 p. Errata slip inserted. 8700 copies printed.

Scientific Ed.: I. F. Rudnitskiy; Reviewer: G. K. Yakhontov, Candidate of Technical Sciences; Ed.: R. D. Nikitina; Tech. Ed.: R. K. Tsai.

PURPOSE: This book may be useful to engineers and scientists engaged in designing radar tracking systems and investigating their potentialities.

COVERAGE: The author describes methods of calculating the effect of various types of disturbances on the accuracy and operating range of tracking-system radars with linear scanning of the antenna beam and, in particular, with circular scanning. Simple methods

Card: 1/8

PEROV, V. P.

[illegible]

KUZIN, Lev Timofeyevich; PEROV, V.P., doktor tekhn. nauk, retsenzent;
KARABANOV, V.A., kand. tekhn. nauk, red.; UVAROVA, A.F., tekhn.
red.

[Design and planning of discrete control systems] Raschet i pro-
ektirovanie diskretnykh sistem upravleniia. Moskva, Mashgiz, 1962.
682 p. (MIRA 15:6)

(Automatic control)

KRUT'KO, Petr Dmitriyevich; TSYPKIN, Ya.Z., retsenzent; PEROV,
V.P., retsenzent; BAVAROV, S.F., retsenzent; IVANUSHKO,
N.D., red.; BELYAYEVA, V.V., tekhn. red.

[Statistical dynamics of pulse systems] Statisticheskaya
dinamika impul'snykh sistem. Moskva, "Sovetskoe radio,"
1963. 558 p. (MIRA 17:1)

PEROV, V.P. (Leningrad)

Optimum distribution of energy in light of signal detection in
noise with simultaneous measurement of their parameters. Izv.
AN SSSR. Tekh. kib. no.5:62-73 S-0 '63. (MIRA 16:12)

S/024/62/000/006/007/020
E140/E135

15600
AUTHOR: Perov, V.P. (Leningrad)

TITLE: Optimal energy distribution in multiple scanning of
a given region

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye
tekhnicheskikh nauk. Energetika i avtomatika, no.6,
1962, 82-95

TEXT: The article concerns the optimal distribution of energy
in various directions of a radar scan, given differing probabilities
of target presence in each direction. Two statements of the
problem are given: a direct problem, namely, to distribute a fixed
available energy supply over the entire region in such a way as to
reduce the integral loss to a minimum; and an inverse problem -
to obtain the minimum energy necessary to satisfy a preassigned
value of the integral loss. The author first finds the necessary
conditions for an optimal energy distribution function, and then
gives a method for finding the optimal function. Cases will be
rare in which a simple analytical solution here given will be
feasible, and in general the problem will have to be solved by
Card 1/2

Optimal energy distribution in ... S/024/62/000/006/007/020
E140/E135

graphical or iterative methods (successive approximations).
Various cases of coordinate measurement and radiolocation problems
are considered. A numerical example is worked showing that a
certain optimal distribution is 15 times more efficient than the
original uniform distribution. 4
There are 4 figures.

SUBMITTED: December 22, 1961

Card 2/2

L 41182-65 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(l) Pf-4
 ACCESSION NR: AP5004677 5/0115/64/000/009/0058/0059

50 c
 70
 18
 8

AUTHOR: none

TITLE: Fourth scientific and technical conference on "Cybernetics for the improvement of measurement and inspection methods"

SOURCE: Izmeritel'naya tekhnika, no. 9, 1964, 58-59

TOPIC TAGS: cybernetics, electric measurement, electric quantity instrument, digital computer, electronic equipment, electric engineering conference

ABSTRACT: The conference was held 1-4 July at the All-Union Scientific Research Institute of Metrology by the Section of Electrical Measurements of the Council on the Problem of "Scientific Instrument Making" of the State Committee on Coordination of Scientific Research Work in the USSR together with the All-Union Scientific Research Institute of Electrical Measurement Instruments and the Leningrad Regional Administration of the Scientific and Technical Division of the Instrument Making Industry. More than 400 delegates from 29 cities of the country participated. Fifty-seven reports were heard and discussed. Reports were given by: P. V. NOVIYSKIY (Leningrad)--"Definition of the Concept of Informational Error in Measurement and its Importance in Practical Use" and "On the Problem of the Average Informational Criterion of Accuracy Throughout the Entire Scale of an Instrument"; Yu. A. Card 1/4

L 41182-65

ACCESSION NR: AP5004677

17

KUPERSHCHIK (Moscow)--"On Determination of the Criteria of Accuracy for Measurement Devices"; S. M. MANDEL'SHTAM (Leningrad)--report on a new criterion of accuracy of measurement instruments; P. F. PARSHIN (Leningrad)--report on optimization when using Fourier transforms on electronic digital computers; S. P. DMITRIYEV, G. Ya. DOLGINTSEVA and A. A. IGNATOV (Leningrad)--proposal of a new method for solving problems of optimum filtering for non-stationary random signals and interference; I. B. CHELPAKOV--"Calculation of the Dynamic Characteristics of an Optimum Complex Two-Channel System which Uses Signals from a Position Meter and from a Speed Meter"; R. A. POLUSKTOV (Leningrad)--"Optimum Periodic Correction in the Measurement of Continuous Signals"; S. P. ADAMOVICH (Moscow)--"Analysis and Construction of Devices for Correction of Non-linearity and Scaling for Unitary Codes; G. V. GORBLOVA (Taganrog)--"A Method for Statistical Optimization in Graduating the Scales of Electrical Measuring Instruments"; M. A. ZEMEL'MAN (Moscow)--"Analog-Digital Voltage Converter with Automatic Error Correction"; B. N. MALINOVSKIY, V. S. KALENCHUK and I. A. YANOVICH (Kiev)--"Automatic Monitoring of the Parameters of the Electrical Signals of Complex Radio and Electronic Equipment"; V. P. PEROV (Moscow)--"Operational Cybernetics as an Independent Scientific Specialization"; Ye. M. OIL'BO (Leningrad)--"On the Problem of Effective Non-linear Scales"; A. I. MARKSLOV (Moscow)--"Devices for Preliminary Processing of the Results of Measurements Presented in the Form of

Card 2/4

L 41182-65

ACCESSION IN: AP500L677

20

Graphic Recordings For Subsequent Introduction of the Information into Universal Digital Computers"; O. M. NOGILSVSR and S. S. SOKOLOV (Leningrad)--"On a Method for Reducing Excess Information"; T. V. NIKOLAYEVA (Leningrad)--"A Device for Temporal Discretization of Continuous Signals"; A. A. LYOVIN and M. L. BULIS (Moscow)--"Optimization of the Transmission of Telemetric Information as a Means for Raising the Efficiency and Eliminating Interference"; D. E. GUKOVSKIY (Moscow)--"On a Statistic Approach to the Detection of Events in Automatic Inspection"; M. I. LANIN (Leningrad)--"Method for Calculating the Holding Time of Communications in a Centralized Inspection System or Constant Servicing Time"; O. N. BRONSHTEYN, A. L. RAYKIN and V. V. RYKOV (Moscow)--"On a Single-Line Mass Service System with Losses"; V. M. SHLYANDIN (Penza)--report on circuit designs for direct compensation electrical digital measuring instruments; A. N. KOMOV (Novocherkassk)--report on a new method for compensation of digital bridges; M. N. GLAZOV (Leningrad)--report on the problem of voltage-to-angular rotation conversion; V. S. GUTNIKOV (Leningrad)--"Methods for Construction of Frequency Capacitance Pickups with a Linear Scale"; R. Ya. SIROPYATOVA and R. R. KHARCHENKO (Moscow)--report on the determination of the amplitude-frequency and phase characteristics of PFM and PWM modulators; Ye. I. TENYAKOV (Novocherkassk)--"The Phototransistor as a Switch for Electrical Measurement Purposes"; N. V. MALYGINA (Leningrad)--a report on ways for making universal equipment for measurement of current, voltage and power; P. P. ORNATSKIY and V. I. RYZULYA (Kiev)--reports on the construction of static voltmeters, wattmeters and

Card 3/4